

REMARKS

Reconsideration of this application is respectfully requested. The non-elected claims have been cancelled in view of the restriction requirement. Claims 22 to 25 are pending in this application. New claims 26-32 have been added.

This application is a divisional application of U.S. Application Serial No. 09/404,587 (now U.S. Patent 6,280,569) and pending U.S. Application Serial No. 10/073,211.

The rejection of claims 22 to 25 as being obvious over Schnyder (U.S. Patent 3,035,963) or Canadian Patent Application 2,243,733 (CAN. '733) in view of Rich (U.S. Patent 3,385,753) is traversed. Schnyder and CAN. '733 disclose strainer and screen assemblies and do not disclose impervious protrusions.

The claimed invention is directed to a vessel, e.g., digester cooking vessel, having substantially vertical internal walls and protrusions, e.g., compression rings, on those walls. See e.g., Spec. p. 2, lns. 6-7. The protrusions on the walls promote vertical movement of the fibrous slurry in the cooking vessel. The protrusions are separate and distinct from the screening assemblies within the vessel. Figure 1 shows that the screen assemblies 14, 15, 16 and 17, are at different horizontal levels in the vessel than are the protrusions, 21 to 27. Moreover, the protrusions are at horizontal levels in the vessel that are otherwise substantially hollow. In particular, the protrusions extend inward from the walls of the vessel no more than one to 12 inches and the remainder of the vessel at the same horizontal level is open, as is shown in Figures 2 to 7. In contrast, screen

assemblies substantially fill an entire horizontal level of the vessel and thus extend much further beyond the 12 inch limit recited in the claims herein.

The annular strainers 5, 21 disclosed in Schnyder extracts cooking liquor from the slurry flowing through the vessel. Schnyder does not expressly state the width of the strainers in the vessel and, thus, there is no teaching of limiting the width of the strainers to 12 inches or less. To further distinguish Schnyder, independent claim 22 has been amended to require the protrusion to be "impervious". The strainers disclosed in Schnyder are clearly porous and not impervious. Moreover, there is no teaching or suggestion in Schnyder of using compression rings to assist in the movement of the slurry through the vessel. Accordingly, there is no teaching or suggestion in Schnyder of the invention recited in claims 22 to 25 of this application.

CAN '733 is distinct from the claimed invention for substantially the same reasons as stated for Schnyder. CAN '733 discloses porous extraction screen assemblies at Figures 7B, 16A and 16B that allow liquor to be extracted from the slurry in the vessel. The extraction screens are not impervious, as is required by the amended claims. Further, there is no suggestion in CAN '733 that the annular screens can be something other than a screen. In particular, CAN '733 at page 9, lines 27 to 28 state that the screens may be continuous -- not that the screens may be something other than screens. It would not have been obvious to convert the screens and strainers in Schnyder and CAN. '933 into the impervious protrusions claimed in the rejected claims.

Rich does not suggest that the strainers and extraction screens of Schnyder and CAN '733 be limited to a width of no more than 12 inches. Rich discloses a strainer and

does not suggest that annular protrusions be mounted in a vessel. Rich does not suggest that its strainer is useful for a vessel having a vertical wall or that the strainer have a shape as called for in the rejected claims. Further, the statement in Rich that the bars on the walls of the vessel may have a thickness of $\frac{3}{4}$ to 2 inches does not suggest that the strainers of CAN '733 or Schnyder should be limited to such dimensions. Indeed, the rejection identifies no motivation or suggestion in the prior art to convert the strainers disclosed in CAN '733 and Schnyder into impervious protrusions having a width no greater than 12 inches. Further and with respect to the new claims, there is no teaching in the applied prior art to form protrusions (impervious or not) between screen assemblies, wherein the protrusions have a width of 2 to 12 inches.

~ The rejection of claims 22 to 25 as being anticipated and obvious over Johanson (U.S. Patent 5,454,490) is traversed. The cascade of cone frustums disclosed for a chip bin in Johanson do not have the shape recited in the rejected claims. Further, the cascade of cones shown in Figures 8 and 9 of Johanson form the interior wall of the vessel. These conical walls in Johanson are not substantially vertical. Claim 22 has been amended to make clear that the internal surface of the vessel is substantially vertical at the protrusion. Accordingly, Johanson does not disclose or suggest the invention recited in claims 22 to 25.

All claims are in good condition for allowance. If any small matter remains outstanding, the Examiner is requested to telephone the undersigned. Prompt reconsideration and allowance of this application is requested.

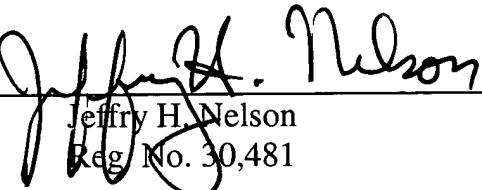
SHEERER
Serial No. 09/848,434

Attached hereto is a marked-up version of the changes made to the specification and claim(s) by the current amendment. The attached page(s) is captioned "Version With Markings To Show Changes Made."

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS

22 (Amended). A substantially vertical vessel having [an] a vertical internal surface, and comprising:

an inlet at or adjacent a top portion of said vessel;

an outlet at or adjacent a bottom portion of said vessel; and

at least one substantially continuous annular protrusion connected to said vertical internal surface and in a substantially horizontal plane, and having a maximum spacing from said internal surface of between about 1-12 inches, said protrusion being substantially impervious and having a cross-section selected from the group consisting essentially of right, isosceles, or scalene triangular, arcuate, and rectangular, and wherein said substantially horizontal plane is a substantially hollow region of said vessel.